VEHICLE TRANSMISSION SYSTEM WITH COAST CONTROLS

ABSTRACT OF THE DISCLOSURE

A clutch assembly controller monitors initiation points for torque transfer and clutch lockup to determine a clutch engagement rate. Engine output shaft and transmission input shaft speeds are monitored to determine the points at which the torque transfer and clutch lockup begin. These points are stored as reference points and are updated as the clutch wears over time. The clutch engagement rate is also modified over time as the reference points change. Further, the controller utilizes the reference points to approach the desired clutch engagement and disengagement points at a higher rate of speed to optimize responsiveness while automatically changing to a lower rate of speed once operating in the desired region of interest to optimize clutch operating performance and comfort.

N:\Clients\ZF MERITOR\IP00244\PATENT\Clutch Assembly with Improved Engagement.doc